CLINICAL RECORDS

PENICILLIN IN THE TREATMENT OF LYMPHOGRANULOMA INGUINALE

The general trend of opinion has been that penicillin has no action on lymphogranuloma inguinale. Patients with syphilis, both primary and secondary, who also had lymphogranuloma have been admitted to this clinic (Indian Military Hospital, Dunkirk) and thus a chance has been afforded of observing the action of penicillin on both diseases.

During the preliminary observations it was noticed that the bubo of lymphogranuloma had subsided by the time that the patient had received 2 mega units (2,000,000 Oxford units) of penicillin during the treatment of syphilis. The progress of the lymphogranuloma lesions was arrested and definite signs of healing of the sinuses which had formed in some cases were observed. These results induced us to make further trials, and additional investigations were undertaken on cases of coincident infection with syphilis and lymphogranuloma inguinale.

In all cases of combined infections, dark-ground investigations were made for *Treponema pallidum* and the Frei test was done for lymphogranuloma inguinale ; in all cases both the tests were found to be positive. Treatment with penicillin was begun, with the result in each case that the chancre healed and the rash faded and that the bubo also responded well.

Later, penicillin was tried in a resistant case of lymphogranuloma, which also responded very well. Details of this case are given below.

Case report

A sepoy, aged 30 years, was admitted on 15th March 1945 with a bubo in the right groin, which burst shortly after admission. Balanitis was also present. *T. pallidum* was not found on dark-ground examination of the balanitic pus, and the Wassermann and Kahn tests were negative on 17th March and negative on 6 occasions up to 25th June. The Frei test was positive on 19th April.

Initial treatment.—Sulphanilamide, 8 tablets daily for 5 days. Injections of Urea Stibamine (a pentavalent compound of antimony) were given intravenously twice a week ; after the patient had received 1·2 grammes, oedema of the face and legs developed.

Urine.—The urine contained numerous pus cells and some epithelial cells. Albumin, sugar and erythrocytes were absent. Blood examination showed haemoglobin 85 per cent, erythrocytes 4,800,000 per cubic millimetre, leucocytes 7,000 : lymphocytes 30 per cent, polymorphonuclear leucocytes 69 per cent and monocytes 1 per cent.

Further treatment.—A second course of 40 tablets of sulphanilamide was begun on 3rd June, but the local condition did not show any improvement.

On 18th June penicillin was administered in 100 injections of 20,000 units at 3-hourly intervals, to a total of 2 mega units. There was a decided improvement of the local condition ; the sinuses showed a very good response, leaving only two small openings, each discharging a bead of pus. Local dressings of penicillin were then applied, and later the sinuses healed completely and the patient was discharged from hospital.

I am grateful to Col. N. J. Gai, Officer Commanding I.M.H. Dunkirk, for permission to publish this case record.

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(2) A CASE OF CONGENITAL SYPHILIS TREATED WITH PENICILLIN

A Sepoy boy, aged 16 years, complained of pain of one month's duration in both wrists. This had occurred shortly after he had been having physical training, during which he had jumped over a " wooden horse " whilst supporting himself with the hands.

Case report

On his admission to hospital there was no swelling over the wrists or lower end of the radius and ulna of either side, but slight tenderness was present at these sites.

The Wassermann and Kahn tests were positive. There was neither penile sore, scar nor urethral discharge to be seen, and he did not give any history of sexual exposure. There were no stigmata of congenital syphilis. The glands in the groin were slightly enlarged.

On x-ray examination it was found that the lower half of both ulnae showed new bone formation and a break in the cortex, with rarefaction of the medulla. Periosteal new bone formation was present in the third metacarpal bone. The findings were suggestive of osteomyelitis due to syphilis. Other bones did not show any abnormality.

The condition was diagnosed as being due to late congenital syphilis. Treatment with 40,000 units of penicillin at 3-hourly intervals was given in 60 injections until a total of 2,400,000 units was reached. X-ray examination after the penicillin treatment showed that the condition had much improved The Wassermann and Kahn tests gave doubtful results. The patient did not complain of any pain nor was there any tenderness present.

I am grateful to Col. N. J. Gai, Officer Commanding I.M.H. Dunkirk, for permission to publish this case record.

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REVIEWS OF BOOKS

Penicillin : Its Practical Application. Under the general editorship of Professor Sir Alexander Fleming, M.B., B.S., F.R.C.P., F.R.C.S., F.R.S. 380 pp., 59 illustrations, Butterworth & Co. (Publishers) Ltd., London, 1946. Price 30s.

The chance contamination of a laboratory culture plate in the year 1928, with the subsequent growth of a mould, was probably no uncommon event then or in any other year. Fortunately for the seething population of the world, Sir Alexander Fleming noted that the staphylococcal colonies on the culture plate in the vicinity of the mould had undergone dissolution, and he thought that "this was an extraordinary and unexpected appearance and seemed to demand investigation." Sir Alexander's impelling curiosity led to the isolation of this mould in pure culture and its identification as a member of a species of the genus penicillium. He noted also that the culture fluid could be diluted several hundred-fold before it lost its property of inhibiting the growth of the staphylococcus. The story of the discovery of penicillin by Fleming has been told and retold in the medical and lay press of the world ; but nowhere has there appeared an account which so deeply arouses our interest and pride in this British achievement as does the engrossing chapter on the history of the discovery and development of penicillin from the pen of Sir Alexander himself.

It has been unusual for the busy doctor to express more than a perfunctory interest in the manufacturing processes which finally provide the medicaments of his daily practice. In the process of the large-scale manufacture of penicillin, however, none can fail to be interested ; and, now, since the end of World War II, when the rigorous wartime secrecy can be largely dispensed with, many a busy and tired medical practitioner can pass a thoroughly enjoyable hour in reading the profusely illustrated chapter on the chemistry and manufacture of penicillin, by A. L. Bacharach and B. A. Hems.

A considerable knowledge of the various methods of using penicillin to best advantage is an essential basis of our judicious administration. For this purpose we need an understanding of the effects of continuous and intermittent injections and of the local administration of penicillin, of its diffusion and distribution in the body tissues and fluids and of its excretion from the body —all of which are dealt with fully in the informative chapter by L. P. Garrod on the pharmacology of penicillin.

Readers of the *Journal* will have a particular interest in the section on the use of penicillin in venereal disease therapy, contributed by G. L. M. McElligott. It will be, perhaps, a little disappointing to venereologists to find only 11 pages, in this book of 380 pages, devoted to an account of the use of penicillin in gonorrhoea and syphilis. One cannot help feeling that the space allowed for this purpose is somewhat disproportionate to the present-day importance of these scourges, which, it is hoped, may ultimately be controlled by this important new therapy. Into this short space, however, is condensed a good deal of the rapidly accumulating knowledge of the use and limitations of penicillin treatment in these two venereal diseases. Much of this information is based upon the experience of treatment of cases in the armed Forces. In gonorrhoea, after initial trials of 3-hourly injections, the period of treatment has been reduced from 48 hours to 12 hours and the total dosage stepped up to 150,000-200,000 units—a schedule which results in the cure of about 90 per cent of acute infections. In the treatment of gonorrhoea it is fortunate that, so far, there appears to be no evidence to support the fear of the development of penicillin-resistant strains of the gonococcus. The difficulties of securing in-patient treatment